

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HERBERT R. GILLIS
and JOHN R. ROBERTSON

Appeal No. 95-0999
Application 07/925,347¹

ON BRIEF

Before KIMLIN, JOHN D. SMITH and PAK, **Administrative Patent Judges.**

PAK, **Administrative Patent Judge.**

DECISION ON APPEAL

Gillis et al. (appellants) appeal from the examiner's
final rejection of claims 1 through 21 and 27 through 32,
which are all of the claims remaining in the application.

¹ Application for patent filed August 4, 1992.

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According to appellants (Brief, pages 3 and 4):

Claims 1-21 and 27-32 stand or fall together
with respect to the rejection under 35 U.S.C. §
102(b) over Gillis.

Claims 1-21 and 27-32 stand or fall together
with respect to the rejection under 35 U.S.C. §
102(b) over Cassidy.

Therefore, for purposes of this appeal, we will limit our
discussion to the broadest claim on appeal, claim 1, which is
reproduced below:

1. A liquid adhesive/sealant reaction system for use in
the preparation of lignocellulosic and cellulosic composites
comprising:

(a) a polyisocyanate having aromatically linked
isocyanate groups and a number average isocyanate
functionality in the range of 1.8 to 4.0; and

(b) a curing agent having at least one imino- or enamino-
functional linkage wherein the molecular number ratio of the
total number of isocyanate groups in the polyisocyanate to the
total number of imino- or enamino-functional linkages is at
least 2:1.

The references of record relied upon by the examiner are:

Gillis Jr. et al. (Gillis)	4,794,129	Dec. 27,
1988		
Cassidy et al. (Cassidy)	4,935,460	Jun.
19, 1990		

Claims 1-21 and 27-32 stand rejected under 35 U.S.C. § 102 (b) as anticipated by Gillis or Cassidy.²

We have carefully reviewed the entire record, including all of the arguments advanced by the examiner and appellants in support of their respective positions. This review leads us to conclude that the examiner's § 102 rejections are well-founded. Accordingly, we will sustain the examiner's § 102 rejections for substantially those reasons set forth in the Answer. We add the following primarily for emphasis.

The claimed subject matter is directed to a liquid adhesive/sealant "reaction system" which comprises a particular polyisocyanate and a curing agent having at least one imino- or enamino-functional linkage. Appellants define "imino-functional" so broadly as to include thousands, if not millions, of compounds having at least one imino- or enamino-functional linkage. See specification, pages 8-13. Appellants also broadly define "reaction system" as including a combination of at least two containers containing the claimed components individually for the purpose of using them

² The examiner has expressly withdrawn the rejection of claim 1 under 35 U.S.C. § 112, second paragraph. See Answer, pages 2 and 5.

as an adhesive/sealant. Specifically, the specification states (page 8):

"Reaction system" as used herein means a system or assemblage of reaction components which, in the system, are **unreacted** or not fully reacted but **which in use**, are reacted with each other. (Emphasis added).

Thus, we construe the claimed liquid adhesive/sealant "reaction system" as including or covering a combination of at least two containers, with each container having only one of at least one particular polyisocyanate and at least one broadly recited component having at least one imino- or enamino-functional linkage. The amounts of the components releasable from the containers are such that they, upon combining, form solid polymer, e.g., dry sealant, at room temperature within a short time period. See specification, page 3. According to appellants, the molecular number ratio of the total number of isocyanate groups in the polyisocyanate to the total number of the imino-or enamino-functional linkage is at least 2:1.

Appellants do not dispute that Gillis and Cassidy individually describe the claimed polyisocyanate and the

claimed curing agent having an imino- or enamino-functional linkage. See Brief, page 7. Nor do appellants dispute the following factual finding:

The weight ratio of polyisocyanate to curing agent of [the applied prior art] is 9:1 to 1:9 and the preferred ratio of isocyanate groups to isocyanate reactive groups is between 0.70 and 1.90 ([see, e.g. Gillis,] column 21, lines 3-11). Note that the curative must include imino groups as defined at [e.g. Gillis,] column 3, line 51 to column 4, line 7. The instant claims recite comprising and therefore do not exclude the additional isocyanate reactive groups of the patentee. The number of isocyanate groups to imino groups falls within that of the appellant's claims in the upper portion of the patentee's preferred range of isocyanate groups to isocyanate reactive groups where the isocyanate groups other than imino and enamino groups are disregarded as can be clearly seen mathematically. Furthermore, based upon the weight ratio of polyisocyanate to curing agent ([see, e.g., Gillis]column 21, lines 3-8[]) and the molecular weights and functionalities of the reactants ([see, e.g., Gillis,] column 3, line 39 to column 4, line 21[]), it is clear mathematically that a large majority of the compositions encompassed by [the applied prior art] will have 2 or more isocyanate groups per imino group. (Compare Answer, pages 4 and 5, with Brief, pages 7-12).

Given the preference for the limited molecular number ratios, inclusive of the claimed ratios, we find that the claimed molecular number ratios would have been readily envisaged by one skilled in the art from reading the

disclosure of either Gillis or Cassidy. *See In re Schaumann*, 572 F.2d 312, 316, 197 USPQ 5, 9 (CCPA 1978)(prior art preferred genus which disclosed limited species, inclusive of claimed species, constituted description of the claimed species within the meaning of 35 U.S.C. § 102(b));

In re Petering, 301 F.2d 676, 681, 133 USPQ 275, 280 (CCPA 1962) (prior art genus containing only 20 compounds inherently anticipated a claimed species within the genus because "one skilled in [the] art would . . . envisage each member" of the genus). Accordingly, we agree with the examiner that the claimed subject matter is fully described by either Gillis or Cassidy within the meaning of 35 U.S.C. § 102 (b).

In reaching this conclusion, we note appellants' argument that both Gillis and Cassidy are directed to "**systems** for preparing polymers by reaction injection molding processes (emphasis our own)." See Brief, page 7. However, we also note that the claimed subject matter is directed to a system, rather than to a composition. The claimed system comprises two individually packaged known components for the purpose of

mixing them so that they can be used as an adhesive/sealant. Both Gillis and Cassidy also place the same components in separate containers before mixing them for the purpose of preparing polymers by reaction injection molding processes. See, e.g., column 20, lines 49-52. While the system of Gillis or Cassidy is used for a purpose different than appellants', we find that it is identical to the claimed system.

Appellants argue that the examiner fails to consider the preamble of the claims on appeal. In this regard, appellants ask us to focus on the term "adhesive/sealant". Appellants then go onto argue (Brief, page 12) that:

even though the present claims recite a "composition", the limitations in the preamble characterizing the composition as "adhesive/sealant reaction systems" must be considered by the Examiner.

In so arguing, appellants themselves fail to consider the claim preamble as a whole, including appellants own definition of "reaction system". As indicated *supra*, appellants claim systems (not compositions) which are taught by either Gillis or Cassidy.

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In view of the foregoing, we affirm the examiner's
decision rejecting claims 1-21 and 27-32 under 35 U.S.C. § 102
(b).

No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

AFFIRMED

	EDWARD C. KIMLIN)	
	Administrative Patent Judge)	
)	
)	
)	
	JOHN D. SMITH)	BOARD OF
PATENT	Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
	CHUNG K. PAK)	
	Administrative Patent Judge)	

CKP/cam

Patent and Trademark Administrator
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